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BERGMAN KUTA LLP P. O. BOX 400167 CAMBRIDGE, MA 02140			PROCTOR, JASON SCOTT	
			ART UNIT	PAPER NUMBER
			2123	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/897,429

Applicant(s)

HALES, ROBERT J.

Examiner

Jason Proctor

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-16,18,19,21,22,24 and 31-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-16,18,19,21,22,24 and 31-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

Art Unit: 2123

DETAILED ACTION

Claims 1 and 3-30 were rejected in Office Action of October 18, 2005. In Applicants' response of 18 April 2006, claims 1, 13, 18, 19, and 21 are amended; claims 17, 20, 23, and 25-30 are cancelled; and new claims 31-35 are presented.

Claims 1, 3-16, 18-19, 21-22, 24, and 31-35 are currently pending.

Claims 1, 3-16, 18-19, 21-22, 24, and 31-35 are rejected.

Priority

1. Applicant's claim for domestic priority under 35 U.S.C. § 119(e) is acknowledged. The Examiner thanks Applicants for clarifying where support for the claims is found.

Applicants have submitted (27 July 2005) that:

Support is believed to exist in the '303 and '040 applications for each of the now-pending claims. [...] Thus, it is believed that enabling support is found in the '303 application for claim 10, and for the same or similar reasons the '303 and '040 applications are believed to fully support the balance of the now-pending claims.

Applicants' arguments have established that the '303 and '040 application fully support the pending claims.

Claim Objections

2. In the submitted claim listing, claim 18 concludes with the text "(p6 14-21)" which is regarded as a typographical error and not part of the claim.

Art Unit: 2123

3. In the submitted claim listing, claim 21 is identified as "Original" however line 11 is amended and lines 14-17 are new. Claim 21 is therefore regarded as "Currently Amended".

Response to Requirement for Information – 37 C.F.R. 1.105

The Examiner thanks Applicants for the full and complete response to the Requirement for Information in the previous Office Action.

Applicants are correct that item 9 of the requirement is a clerical error.

4. Applicants' response to the Requirement for Information of the previous Office Action states (page 4, response to item 2 of the Requirement for Information):

The CADDstar version 5.0 help manual was distributed electronically with copies of the corresponding software. Arguably, such distribution does not constitute "publication." First distribution of the CADDstar Version 5.0 Help Manual coincided with the first sale of the CADDstar Version 5.0 Software. The corresponding date of first sale is indicated on the invoice provided in response to Requirement 3 below (Appendix M).

Applicants' response further states:

The precise date of first offer for sale of CADDstar version 5.0 is presently unknown, but is believed to be in 1998.

Submitted herewith as Appendix M is an invoice showing the actual date of first sale as April 11, 1998.

Applicants' contention regarding "publication" of an electronically distributed document is noted. The Examiner's response is that computerized documentation intended to accompany and disclose the manner of operating certain computer software meets the definition of "printed publication" as used in 35 U.S.C. § 102 for the rationale set forth in MPEP 2128 and *In re Wyer*, 655 F.2d 221, 227, 210 USPQ 790, 795 (CCPA 1981).

Art Unit: 2123

Based on the above statements, which are taken in good faith, "CADDstar version 5.0," a component of which is "CADDstar version 5.0 help manual," was on sale on or prior to 11 April 1998. Therefore, "CADDstar version 5.0 help manual" is a printed publication as of 11 April 1998.

Based upon the earliest claimed priority date in this application (21 September 2000, accorded to provisional application 60/234,303) the "CADDstar version 5.0 help manual" qualifies as prior art under 35 U.S.C. § 102(b).

5. Applicants' response to the Requirement for Information of the previous Office Action states (page 5, response to item 4 of the Requirement for Information):

The CADDstar version 3.81 help manual was distributed electronically with copies of the corresponding software. Arguable, such distribution does not constitute "publication." First distribution of the CADDstar Version 3.81 Help Manual coincided with first sale of the CADDstar Version 3.81 Software. The corresponding date of first sale is indicated on the invoice provided in response to Requirement 5 below (Appendix N).

Applicants' response further states:

The precise date of first offer for sale of CADDstar version 3.81 is presently unknown, but is believed to be in 1997.

Submitted herewith as Appendix N is an invoice showing the actual date of first sale as July 11, 1997.

Applicants' contention regarding "publication" of an electronically distributed document is noted. Based on the above statements, which are taken in good faith, "CADDstar version 3.81," a component of which is "CADDstar version 3.81 help manual," was on sale on or prior to 11 July 1997. Therefore, "CADDstar version 3.81 help manual" is a printed publication as of 11 July 1997.

Art Unit: 2123

Based upon the earliest claimed priority date in this application (21 September 2000, accorded to provisional application 60/234,303) the "CADDstar version 3.81 help manual" qualifies as prior art under 35 U.S.C. § 102(b).

6. Applicants' response to the Requirement for Information of the previous Office Action states (page 8, response to item 10 of the Requirement for Information):

Comparison of the United States provisional patent application number 60/236,040 (*hereinafter* the '040 application), the benefit of which is claimed in the present application, to the CADDstar Version 5.0 Help Manual shows that at least the sections labeled 16.0 (Details Menu)-16.11 (Designing from a Node to a Detail) are present in the '040 application, but not in the CADDstar Version 5.0 Help Manual. Accordingly, the invention as disclosed in sections 16.0-16.11 of the '040 application are neither disclosed nor suggested in the CADDStar Version 5.0 Help Manual.

The Examiner has reviewed these documents and, taking Applicants' statements in good faith, concurs that the invention as disclosed in sections 16.0-16.11 of the '040 application is neither disclosed nor suggested in the CADDStar Version 5.0 Help Manual.

Applicants' response further states:

Applicant notes that the sections labeled 16.0 (Details Menu)-16.11 (Designing from a Node to a Detail) in the '040 application are first present in the help document for CADDstar Version 5.2. Accordingly, submitted herewith as Appendix Q is a version screen for the help manual for CADDstar Version 5.2. The version screen shows a version date of February 25, 2000.

Also submitted herewith as Appendix R is a copy of a help manual document for CADDStar Version 5.2. The copy was prepared from a computer file having a date of August 3, 2000.

The Examiner thanks Applicants for this response and submission.

Applicants' statements are understood to mean that the software product "CADDstar Version 5.2" was offered for public or private sale and that the corresponding documentation, provided in Appendix R, was disseminated with that software product on or around 25 February 2000.

Art Unit: 2123

The "CADDstar Version 5.2 Help Document" qualifies as prior art under 35 U.S.C. § 102(a) and anticipates the invention as described by section 16.0 (Details Menu)-16.11 (Designing a Node to a Detail) in the '040 application.

Claim Rejections - 35 U.S.C. § 101

The previous rejections under 35 U.S.C. § 101 are withdrawn in response to Applicants' remarks and amendments to the claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. § 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1, 3-12, and 31-35 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 1 has been amended to recite the limitation "said visible image including a detail drawing." Applicants' submit that support for this limitation is found in provisional application 60/236,040, at "sections 16.0-16.11". This provisional application has been incorporated by reference. The provisional application is naturally unpublished. Support for this limitation is not believed to exist in the specification of the instant application.

Art Unit: 2123

Therefore **essential material** as defined by 37 CFR 1.57(c)(1) necessary for support of claim 1 under 35 U.S.C. § 112, first paragraph, is **incorporated by reference to an unpublished application for patent**.

The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter. 37 CFR 1.57(f).

8. Claims 21, 22, and 24 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 21 has been amended to recite the limitation “modifying said graphically represented logical model using markup lines” which was not described in the application as filed. It is unknown whether support for the claimed “markup lines” is found in the provisional applications incorporated by reference. The Examiner has carefully reviewed Applicants remarks and has found no indication where written description of this claimed feature may be found. The Examiner presumes this is an error of omission.

Art Unit: 2123

9. Claim 33 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 33 recites “a fiber reel having an uneven buffer count” which was not described in the application as filed. It is unknown whether support for the claimed “fiber reel having an uneven buffer count” is found in the provisional applications incorporated by reference.

10. Claim 34 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 34 recites “a fiber reel including 36 buffers” which was not described in the application as filed. It is unknown whether support for the claimed “fiber reel including 36 buffers” is found in the provisional applications incorporated by reference.

Claim Interpretation

Regarding the phrase “substantially instantaneously identical” as recited by claim 13, Applicants have submitted (27 July 2005) that:

One of skill in the art would readily appreciate that the meaning of the term “substantially instantaneously identical” reflects the context of the system in which the term is used. Thus for example where data is mirrored on two servers, as a practical matter, the same data is available to users of both servers on a timeframe that is otherwise compatible with system operation. As such, one of skill in the art would understand the subject claim limitation without the expression of an absolute time span.

Art Unit: 2123

Regarding the phrase “detail drawing” as recited by claim 1 and others, provisional application 60/236,040, at section 16.0, describes:

A detail drawing is a sub-drawing contained in a CADDSTAR session or design node. A detail drawing allows you to include added detail to an area that might be otherwise impossible because of object density, lack of space, etc. The following sections will explain the different operations contained in the details menu.

The Examiner interprets this description broadly so as to not confine the definition of a “detail drawing” to existing solely in “a CADDSTAR session or design mode.” This interpretation encompasses functional equivalents to what is described above.

Regarding the phrase “markup lines” as recited by claim 21, Applicants’ intention regarding this phrase is not precisely known. The Examiner therefore interprets the limitation broadly as “modifying said graphically represented logical model”.

Claim Rejections - 35 USC § 102

11. The previous rejection of claims 1 and 3-12 under 35 U.S.C. § 102(b) as being anticipated by “CADDStar Version 5.0 Help Manual” and/or “CADDStar Version 3.81 Help Manual” is withdrawn in light of Applicants’ amendments to claim 1, which specifically recites limitations described in sections 16.0-16.11 of the ‘040 application.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 2123

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

12. Claims 1, 3-16, 18-19, 21-22, 24, and 31-35 rejected under 35 U.S.C. 102(a) as being clearly anticipated by "CADDstar Version 5.2 Help Document".

Applicants' response to the Requirement for Information states (page 8, response to item 10 of the Requirement for Information):

Applicant notes that the sections labeled 16.0 (Details Menu)-16.11 (Designing from a Node to a Detail) in the '040 application are first present in the help document for CADDstar Version 5.2. Accordingly, submitted herewith as Appendix Q is a version screen for the help manual for CADDstar Version 5.2. The version screen shows a version date of February 25, 2000.

Also submitted herewith as Appendix R is a copy of a help manual document for CADDStar Version 5.2. The copy was prepared from a computer file having a date of August 3, 2000.

Applicants' remarks state (page 15):

Sections 16.0-16.11 are also found in the CADDstar Version 5.2 Help Manual, which has a date of February 25, 2000. Applicant respectfully notes that the version date of February 25, 2000 predates the filing of the '040 application by less than one year; the filing date of the '040 application being September 28, 2000. Accordingly, the rejection of claim 1 under 35 U.S.C. § 102(b) should be withdrawn.

Applicants' arguments are persuasive; for this reason, claims 1, 3-16, 18-19, 21-22, 24, and 31-35 are rejected under 35 U.S.C. § 102(a) as being clearly anticipated by "CADDstar Version 5.2 Help Document".

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 13-16, 18, 19, 21-22, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by "CADDStar Version 5.0 Help Manual" and/or "CADDStar Version 3.81 Help Manual".

Art Unit: 2123

As set forth above, the publication date of "CADDStar Version 5.0 Help Manual" has been established as 11 April 1998.

As set forth above, the publication date of "CADDStar Version 3.81 Help Manual" has been established as 11 July 1997.

Applicants have stated in their response to the Requirement for Information (page 8, response to item 10 of the Requirement for Information):

Comparison of the United States provisional patent application number 60/236,040 (*hereinafter* the '040 application), the benefit of which is claimed in the present application, to the CADDstar Version 5.0 Help Manual shows that at least the sections labeled 16.0 (Details Menu)-16.11 (Designing from a Node to a Detail) are present in the '040 application, but not in the CADDstar Version 5.0 Help Manual. Accordingly, the invention as disclosed in sections 16.0-16.11 of the '040 application are neither disclosed nor suggested in the CADDStar Version 5.0 Help Manual.

None of claims 13-16, 18, 19, or 21-24 appear to draw support from sections 16.0-16.11 of the '040 application. Therefore the Examiner concludes that these claims are anticipated by "CADDStar Version 5.0 Help Manual" and/or "CADDStar Version 3.81 Help Manual".

In response, Applicants argue primarily that:

Like claim 1, claim 13 recites the feature of a "detail notes" portion. As discussed above in relation to claim 1, this feature is neither taught nor suggested in the prior art references of record.

The Examiner respectfully traverses this argument as follows.

Claim 1 does not recite a "detail notes" portion. Claim 1 does recite a "detail drawing". Support for the "detail notes" limitation does not appear to be found in sections 16.0-16.11 of the '040 application. Therefore claim 13 and those dependent from claim 13 appear to be anticipated by "CADDStar Version 5.0 Help Manual" and/or "CADDStar Version 3.81 Help Manual".

Applicants' arguments have been fully considered but have been found unpersuasive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claims 1, 3-9, and 12 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport et al. US Patent No. 6,499,006 hereafter referred to as Rappaport.

Regarding claim 1, Rappaport teaches a method for designing a network comprising:

Storing an attribute of a communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Reading the attribute from the database entry (column 6, lines 40-44);

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35); and

Forming a visible image representing said planned deployment, said visible image including a detail drawing (column 4, lines 33-50).

Rappaport does not expressly teach a planned deployment of the network being designed.

However, it would be obvious to a person of ordinary skill in the art at the time of Applicant's invention that the disclosed invention, a network design tool, would be a useful part

Art Unit: 2123

of deploying the network once it is designed. Implementing a system being designed is the implicit goal of a design tool.

Rappaport's preferred embodiment is related to a wireless system which Rappaport teaches as including optical communication links [*"In addition, RP networks involving micromachinery, RF identification tags, and optical communication links are of increasing interest."* (column 1, lines 34-36)].

Therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to modify the teachings found in Rappaport to arrive at the invention specified in claim 1.

In response, Applicants argue primarily that:

Applicant respectfully observes, however, that there is nothing in Rappaport, whether taken alone or in combination with other references of record, to teach or suggest the claimed combination of claim 1 including "a detail drawing".

The Examiner respectfully traverses this argument as follows.

Giving the phrase "detail drawing" a broad, reasonable interpretation based upon the plain meaning of the terms, Rappaport discloses a "detail drawing". In column 4, lines 33-50, the disclosure that "The design may view the entire environment in simulated 3-D, zoom in on an area of interest, or dynamically alter the viewing location and perspective to create a "fly-through" effect" would suggest to a person of ordinary skill in the art that "zoom[ing] in on an area of interest" presents a "detail drawing," i.e. a visual representation of the environment in greater detail. The Examiner respectfully submits that the ability to show greater detail is generally accepted as one of the primary purposes for providing a "zoom in" feature in a computer tool.

Applicants' argument has been fully considered but has been found unpersuasive.

Regarding claim 3, Rappaport teaches a computer-implemented method (column 4, lines 33-50) and recording associations in a computer database (column 6, lines 40-49).

Regarding claim 4, Rappaport does not explicitly teach physically deploying a physical instance of the component. However, Rappaport does teach a network design tool (column 5, lines 57-65; column 8, lines 23-35) and therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to physically deploy the network after it has been designed.

Regarding claims 5 and 6, Rappaport teaches identifying a geographic location for the network and displaying a graphical representation of the geographic location (column 4, lines 3-9; column 4, lines 33-38; column 8, lines 44-57).

Regarding claims 7-9 and 12, Rappaport does not explicitly teach components selected from the recited group, however the rejection formed in the rejection of claim 1 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

Art Unit: 2123

15. Claims 10-11, 21-22 and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport as applied to claim 1 above, and further in view of Bergholm et al. US Patent No. 5,761,432 hereafter referred to as Bergholm.

Regarding claims 10 and 11, Rappaport teaches the limitations of claim 1.

Rappaport does not expressly teach identification of network components with an owner or with a communication circuit.

Bergholm teaches a method for network administration and design (column 2, lines 39-63) wherein network components (exemplified by links) are identified as belonging to circuits (network hierarchy) and have attributes such as ownership (column 4, lines 13-24).

Bergholm and Rappaport are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to tie inventory management, order management, and design management with an attribute design database system (Bergholm, column 1, lines 55-67) with the network design method and system taught by Rappaport. This combination allows Rappaport's network design tool to apprise network builders of inventory information and designing links to implement orders (Bergholm, column 1, lines 55-67). The combination could be achieved by including ownership and circuit attributes in the network design method taught by Rappaport, and specifically where the user modifies the properties of network components (column 8, lines 23-35).

Art Unit: 2123

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Rappaport and Bergholm to arrive at the invention specified in claims 10 and 11.

In response, Applicants have submitted arguments that rely upon the propriety of the rejection of claim 1 which has been addressed above. Applicants' arguments regarding claims 10 and 11 have been fully considered but have been found unpersuasive.

Regarding claim 21, Rappaport teaches a software method for designing a network comprising:

Storing an attribute of a communication component in a catalog database entry (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

Associating the catalog database entry with a design profile (column 6, lines 40-44; column 8, lines 23-35);

Reading the attribute from the database entry (column 6, lines 40-44);

Associating the attribute with a planned deployment of a physical instance of the component (column 8, lines 23-35);

Calculating power and signal relationships within the communications network (column 7, lines 10-48);

Modifying the graphically represented logical model (column 6, lines 36-48).

Rappaport does not teach a system of computers including a first and second computer connected through a communications link and sharing the logical model through the link.

Bergholm teaches a system of computers including a client server architecture including a central server coupled to a plurality of workstations (column 14, lines 14-45). Bergholm teaches that the server stores application software (column 14, lines 57-60).

Bergholm teaches a client server architecture where a logical model of a network can be modified and transmitted through a network (column 3, lines 6-14; column 14, lines 14-45).

Bergholm and Rappaport are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the software method for designing a network taught by Rappaport with the client server architecture taught by Bergholm to produce a software method with improved ease of access for plural designers. The combination could be achieved by implementing the software method taught by Rappaport using a central computer components database and transmitting the logical model through the network.

Although Rappaport does not explicitly refer to a operatively connecting the cables of the modeled network, it would be obvious to a person of ordinary skill in the art at the time of Applicant's invention that the disclosed invention, a network design tool, would be a useful part of deploying the network once it is designed. Implementing a system being designed is the implicit goal of a design tool.

Neither Rappaport nor Bergholm explicitly teach receiving authorization for operatively connecting two communication cables, however it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention in combination with his own

Art Unit: 2123

knowledge of the particular art to relay such information through a connection in order to notify a user at a remote workstation of authorization to change the status of the network. This notification would be necessary so that the design tools accurately reflect the networks being managed. Such a feature could be achieved with electronic mail.

In response, Applicants' argue primarily that:

The proposed combination of the Rappaport and Bergholm references does not teach or suggest the claimed combination of features including "modifying said graphically represented logical model using markup lines and transmitting said modified logical model to said first computer."

The Examiner respectfully traverses this argument as follows.

The limitations to which Applicants refer were previously recited as claim 23 with the addition of the use of "markup lines". As set forth above under the Claim Interpretation section, it is unknown where support for "markup lines" can be found and it is unclear what the precise definition of "markup lines" would be. However, as noted previously in the rejection of claim 23 and presently in the rejection of claim 21, Rappaport teaches modifying the graphically represented logical model (column 6, lines 36-48) and Bergholm teaches transmitting a logical model to a computer (column 3, lines 6-14; column 14, lines 14-45).

Applicants' arguments have been fully considered but have been found unpersuasive.

Regarding claim 22, neither Rappaport nor Bergholm explicitly teach a step of transmitting a notice of completion of the connection of physical cables through the link into the first computer. However, it would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention in combination with his own knowledge of the particular art to relay such information through a connection in order to notify a user at a remote workstation of a

Art Unit: 2123

change in the status of the network. This notification would be necessary so that the design tools accurately reflect the networks being managed. Such a feature could be achieved with electronic mail.

Regarding claim 24, Rappaport teaches characterizing the signal strength of a radio frequency signal (column 3, lines 43-54).

16. Claims 13-16, 18, and 19 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rappaport in view of Bergholm, and further in view of Tonelli et al. US Patent No. 5,821,937 hereafter referred to as Tonelli.

Regarding claim 13, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35);

Calculating power and signal relationships within the communications network (column 7, lines 10-48); and

Art Unit: 2123

Forming a visible image representing said planned deployment, said visible image including a detailed layout of a network within a multiple dwelling unit (column 4, lines 33-50).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

Tonelli teaches a “detail notes portion” [for example, FIG. 11, reference 116’ or FIG. 30, reference 310].

Rappaport and Tonelli are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. Motivation is expressly provided by Tonelli [*“Validation prevents the user from making invalid connections and, where possible, assists the user in completing intermediate configurations that make otherwise invalid connections valid.”* (column 4, lines 53-56)]. The combination could be achieved by including the rules information in the computer parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport in view of Tonelli does not expressly teach a system of computers including a first computer storing application software and second and third computers sharing mirrored project data.

Art Unit: 2123

Bergholm teaches a system of computers including a client server architecture including a central server coupled to a plurality of workstations (column 14, lines 14-45). Bergholm teaches that the server stores application software (column 14, lines 57-60). The functionality provided by client server architecture, including synchronization of application data, is regarded as well known in the art.

Bergholm and Rappaport in view of Tonelli are analogous art because both are directed to network design.

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the software method for designing a network taught by Rappaport with the client server architecture taught by Bergholm to produce a software method with improved ease of access for plural designers. Motivation is expressly provided by Bergholm ["*The database also provides for easy access to order information so that orders can be created and modified and orders in progress can be monitored.*" (column 1, lines 62-64)]. The combination could be achieved by implementing the software method taught by Rappaport using a central computer components database and executing the application software remotely.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Bergholm, Tonelli, and Rappaport to arrive at the claimed invention.

In response, Applicants argue primarily that:

Claim 13 as amended recites a combination of features including "a detail notes portion." Whether taken alone or in combination, the Rappaport, Bergholm and Tonelli references do not teach or suggest this combination of limitations.

The Examiner respectfully traverses this argument as follows.

Tonelli plainly teaches a detail notes portion as cited above. The Examiner further notes that it the phrase “detail notes portion,” when given a broad, reasonable interpretation, may be broader than the preferred embodiments found in Applicants’ disclosure.

Applicants’ argument has been fully considered but has been found unpersuasive.

Regarding claim 14, Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant’s invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Regarding claim 15, Rappaport does not explicitly teach an optical cable having a buffer with first and second fibers, said fibers having different nominal characteristics, however the rejection formed in the rejection of claim 14 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer

Art Unit: 2123

parts database taught by Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

Regarding claim 16, Rappaport teaches a software method for designing a network comprising a wireless communication portion (column 5, lines 52-65).

Regarding claim 18, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

Tonelli teaches a Synchronous Optical Network (SONET) thereby implicitly teaching an optical switch portion (column 17, lines 26-40).

Art Unit: 2123

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the network. The combination could be achieved by including the rules information in the computer parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

In response, Applicants argue primarily that:

Claim 18 as amended recites a combination of features including "an optical switch portion." Whether taken alone or in combination, the Rappaport, Bergholm, and Tonelli references do not teach or suggest this combination of features.

The Examiner respectfully traverses this argument as follows.

Art Unit: 2123

The Tonelli reference plainly suggests an optical switch portion through the teaching of a Synchronous Optical Network as cited above. As would be apparent to one of ordinary skill in the art, an optical network such as a SONET includes an optical switch portion.

Applicants' arguments have been fully considered but have been found unpersuasive.

Regarding claim 19, Rappaport teaches a software method for designing a network comprising:

A catalog portion adapted to receive data defining a plurality of communication network components (column 4, lines 46-50; column 6, lines 36-60) referred to as a computer parts database;

A data portion indicating a logical model of a communications network (column 8, lines 23-35); and

Calculating power and signal relationships within the communications network (column 7, lines 10-48).

Rappaport does not explicitly teach a design profile portion adapted to receive data defining a plurality of design rules.

Tonelli teaches a system for designing a network (column 2, lines 39-63) wherein a plurality of design rules define how a logical model of a network may be constructed (column 4, lines 44-60).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of prior art to produce a network design tool that can validate the design choices made by the user so as to reduce problems when deploying the

Art Unit: 2123

network. The combination could be achieved by including the rules information in the computer parts database taught by Rappaport so the software can prevent the user from making invalid selections.

Rappaport does not explicitly teach designing a network having an optical fiber portion, but does teach that the disclosed method is adaptable to other technologies (column 10, line 53-column 11, line 6).

Bergholm teaches a system for designing a network (column 2, lines 39-63) including an optical fiber portion (column 4, lines 25-33).

Bergholm teaches a method for network administration and design (column 2, lines 39-63) wherein network components (exemplified by links) are identified as belonging to circuits (network hierarchy) and have attributes such as ownership (column 4, lines 13-24).

It would have been obvious to a person of ordinary skill in the art at the time of Applicant's invention to combine the teachings of the prior art to produce a network design tool that can design networks having an optical fiber portion so as to enable designers more flexibility in their design. The combination could be achieved by including optical fiber network components in the computer parts database taught by Rappaport (column 6, lines 36-60).

Rappaport does not explicitly teach an optical cable having a buffer with first and second fibers, said fibers having different nominal characteristics, however the rejection formed in the rejection of claim 14 renders obvious the decision to incorporate the fiber optical communication network components necessary to adequately design a fiber optical communication network. The recited group of components would be included in the computer parts database taught by

Art Unit: 2123

Rappaport and made available to the network designer (column 8, lines 23-35; column 6, lines 36-60).

In response, Applicants argue primarily that:

Claim 19 as amended recites a combination of features including “a fiber segment identified to a particular owner.” Whether taken alone or in combination, the Rappaport, Bergholm, and Tonelli references do not teach or suggest this combination of limitations.

The Examiner respectfully traverses this argument as follows.

The Bergholm reference plainly suggests identifying ownership of network segments as cited above.

Applicants’ arguments have been fully considered but have been found unpersuasive.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2123

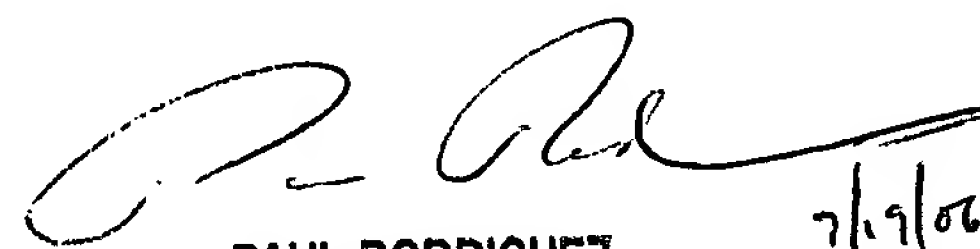
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

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7/19/06